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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/802,024	03/16/2004	Alexei A. Gridnev	CL2556USNA	2649

23906 7590 07/14/2005

E I DU PONT DE NEMOURS AND COMPANY  
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WILMINGTON, DE 19805

EXAMINER
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CHOI, LING SIU

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 07/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/802,024	GRIDNEV ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Ling-Siu Choi	1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 June 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4-17 and 24-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-17 and 24-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. This Office Action is in response to the Amendment filed June 13, 2005. Claims 3 and 18-23 were canceled and claims 1-2, 4-17, and 24-33 are now pending. In view of the Amendment, claim rejections under second paragraph of 35 U.S.C. 112 and claim rejections under 35 U.S.C. 102(b) as being anticipated by Muir et al. (US 5,684,101) are moved. Claim rejection under 35 U.S.C. 102(b) as being anticipated by Hawthorne (WO 87/03605) are maintained.

#### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

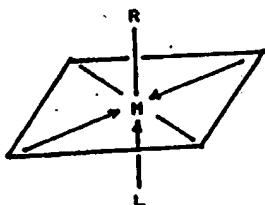
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2, 4-17, and 24-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Hawthorne (WO 87/03605).

A <b>process</b> to polymerize one or more vinylically-unsaturated monomers, comprising	
contacting	the vinylically-unsaturated monomers,
	a chain transfer catalyst, and
	a <b>hydrogen atom donor molecule</b>
in the absence of conventional free radical initiators	
at a temperature from about room temperature to about 240°C	

(summary of claim 1)

Hawthorne discloses an oligomer obtained by the free radical polymerization of **unsaturated monomers** in the presence of a **chain transfer agent** comprising a transition metal complex of a metal cation and at least one chelating agent, wherein the transition metal complex is represented by the general structure of



wherein R is hydrogen or an organic group; L is a ligand for controlling the stability and electron transfer properties of the transition metal complex having cobalt and a bis(dimethyl glyoxime) ligand (abstract; page 3, lines 5-17; page 4, lines 15-17 and 29-31; page 5, lines 7-8). Hawthorne further disclose **L can be water or an alcohol** (page 5, lines 23-31). Attention is drawn to Example 1, wherein methyl methacrylate (MMA) in benzene is heated in the presence of a cobalt complex obtained by the contact of cobaltous acetate tetrahydrate, dimethylglyoxime, and pyridine in hydrogen to obtain oligo-MMA. It is noted that no conventional initiator such as AIBN used in Example 2 is used in oligomerization of the unsaturated monomers. Thus, the present claims are anticipated by the disclosure of Hawthorne.

***Response to the Amendment***

4. Applicant's arguments filed on June 13, 2005 have been fully considered but they are not persuasive.

Applicants, " There is no disclosure or suggestion of the presence of hydrogen gas or any other hydrogen atom donor being present during the polymerization."

It is noted that the chain transfer agent contains L group which can be water or an alcohol which reads on hydrogen atom donor molecule. Thus, claim rejections under 35 U.S.C. 102(b) as being anticipated by Hawthorne (WO 87/03605) are maintained.

***Conclusion***

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 1713

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098.

If attempt to reach the examiner by telephone are unsuccessful, the examiner=s supervisor, David Wu, can be reach on 571-272-1114.



**LING-SUI CHOI**  
**PRIMARY EXAMINER**

July 5, 2005